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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/814,110

03/30/2004

Shigeomi Chono

YMUCP002

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10/07/2009

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EXAMINER

NGUYEN, DUNG T

ART UNIT

PAPER NUMBER

2871

NOTIFICATION DATE

DELIVERY MODE

10/07/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@wavsip.com

Office Action Summary	Application No. 10/814,110	Applicant(s) CHONO ET AL.	
	Examiner Dung Nguyen	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/05/2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 3,7,15-22 and 25-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,8-14,23,24,28-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicants' amendment dated 12/05/2007 have been received and entered. By the amendment, claims 1, 2, 4-6, 8-14, 23-24 and 28-31 are remain pending in the application. Claims 3, 7, 15-22 and 25-27 stand withdrawn from consideration.

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-2, 4-6, 8-9, 11, 13, 23 and 28-31 stand rejected under 35 U.S.C 102(e) as being anticipated by Manabe et al., US Patent Application Publication No. 2002/0063829 A1.

The above claims are anticipated by Manabe et al. figures 1-3b and accompanying text which discloses a flow of liquid crystal comprising:

- . a fixed lower member (3b);
- . an upper member (3a). It should be noted that the term "movable" recites an intermediate step during making alignment between two substrates which inherently performed in making an LCD.
- . a channel defined by the lower and the upper member;
- . a liquid crystal layer (3c), wherein liquid crystal molecules being movable along wall surfaces except for the molecules that are anchored to the wall surfaces (see figures 3a-3b);
- . a pair of electrodes (3c/3d);

. a means for applying an electric field (3f) to turn liquid crystal molecules (e.g., changing position) in a plane intersecting to the upper/lower member (e.g. tilt)(see figures 3a-3b);

. a sub-means for turning the liquid crystal molecules twisted around the axis intersecting to the upper/lower member (e.g., normal axis).

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 10, 12, 14 and 24 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Manabe et al., US Patent Application Publication No. 2002/0063829 A1.

Regarding the above claims, Manabe et al. disclosed the claimed invention as described above except for applying a magnetic field to the liquid crystal molecules. It would have been an obvious to one having ordinary skill in the art at the time the invention was made to apply a magnetic field since the examiner takes Office Notice of the equivalence of an electric field and a magnetic field for their use in the LCD art and the selection of any of these known equivalents for driving a display device would be within the level of ordinary skill in the art.

Response to Arguments

5. Applicant's argument filed 12/05/2007 (amendment F) has been fully considered but they are not persuasive.

Applicants, again, appear to believe that Manabe does not disclose any means for changing the position of molecules (e.g., liquid crystal molecules are not “moved” in the way molecules are cause to move). The Examiner is not convinced by this argument since the same is true of the Manabe et al. liquid crystal molecules. In particular, as asserted by Applicant, the Manabe et al. liquid crystal molecules do turn around their centers of gravity, i.e., change their position (even turn around their center by themselves). It should be noted that the Manabe et al molecules might not change their path between two substrates, according to the Applicant’s illustrated submitted on 12/05/2007, the such liquid crystal molecules do change their position as claimed as well.

Accordingly, the rejection of claims 1, 2, 4-6, 8-14, 23, 24 and 28-31 stand.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Nguyen whose telephone number is 571-272-2297. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DN
09/30/2009

/Dung T. Nguyen/
Primary Examiner
Art Unit 2871